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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/776,656	02/05/2001	David L. Johnson	AT/K-22162/P1/CGC 2054	2528

22249 7590 05/20/2003

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EXAMINER
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HAMILTON, CYNTHIA

ART UNIT	PAPER NUMBER
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1752

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DATE MAILED: 05/20/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/776,656

Applicant(s)

JOHNSON ET AL.

Examiner

Cynthia Hamilton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12/24/02, 5/8/03.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-8, 10, 11 and 13-20 is/are pending in the application.
- 4a) Of the above claim(s) 17 and 18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5, 10-11, 13, 15-16, 20 is/are rejected.
- 7) ☒ Claim(s) 6-8, 14 and 19 is/are objected to.
- 8) ☒ Claim(s) 1-8, 10-11, 13-20 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                             | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____  |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)         | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____                                    |

1. DETAILED ACTION

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on December 24, 2002 has been entered.

3. Attorney's statement that Melisaris US (6,136,497 as identified in same letter) was commonly owned by or subject to an obligation of assignment to, the same organization at the time the present invention was made removes this reference as prior art. Applicant has provided evidence in this file showing that the invention was owned by, or subject to an obligation of assignment to, the same entity. Accordingly, Melisaris US (6,136,497) is disqualified as prior art through 35 U.S.C. 102(e), (f) or (g) in any rejection under 35 U.S.C. 103(a) in this application.

4. Claims 1-5, 10-11, 13, 15-16 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over unpatentable over Melisaris et al (WO 99/50711) in view Tsao et al (4,156,035). Melisaris et al disclose the instant invention with the exception of (1) using free radical initiators when using acrylate compounds and (2) not requiring that an instant component c) be present. In Melisaris et al, see particularly wherein any free radical photoinitiator is usable, wherein hydroxyl-containing trimethacrylates are disclosed as acrylates useable, and wherein compounds like those in instant claim 12 are found, and component c) is the compound having at least one unsaturated group and at least one hydroxy group in its molecule. If component c) is a (meth) acrylate compound, Melisaris et al disclose always a free radical initiator with the use of

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a (meth) acrylate. Never is the (meth) acrylate compound used by Melisaris et al without one. In Melisaris et al, see particularly page 4, lines 10- page 8, lines 14, page 12, lines 23 to page 13, page 15, lines 8-9, page 17 first two paragraphs and last paragraph, page 18-19, page 24, fourth paragraph, to page 23 and page 29-30. Also in Melisaris et al, see page 28 with respect to instant claim 16. Any of applicant's examples given in their specification make use of known free radical initiators as set forth by Tsao et al (4,156,035). Tsao et al (4,156,035) teach aromatic onium salts, especially sulfonium salts, act to polymerize both epoxies and acrylates when mixed as in Table 1, formulation 5, and state in col. 4, lines 37-68, without the addition of the carbonyl type photoinitiators described. There is no mention of using an added sensitizer by Tsao et al for their sulfonium salts to be initiators of acrylates, i.e. free radical initiators. The substitution of one compound known to perform the same function for another given in the prior art is held prima facie obvious as is the addition of the product to the other to perform the same function. Applicants have presented comparative test results on page 26 of the specification. However, never do they compare a composition with the same amount of cationic sulfonium initiator wherein no free radical initiator is present with a mixture of these two when acrylates are present. Thus, there is no clear showing that the sole exclusion of the free radical initiator caused any unobvious results. As to the presence of component c), Melisaris et al teach their choice as part of the acrylate component of their compositions. With respect to instant claims 10-11, component d) is disclosed by Melisaris et al as a choice for the PEPO component on page 25, third paragraph, lines 7-12. With respect to instant claims 1-5, 10-11, 13, 15-16 and 20, the compositions of Melisaris et al wherein the cationic initiator is chosen to be one both free radical and cationically functional such as some of the sulfonium and iodonium compounds listed by

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applicants would have been prima facie obvious as would have been the increase in the amount of onium salt to cover the added function required as done by applicants in their specification in order to reduce the number of materials to be handled and as the substitution of one known free radical initiator for another. The examiner notes that this rejection is made because of the confusion as to what is meant by applicant's "the composition contains no free radical initiator". The examiner again notes that applicant's comparison on page 26 is insufficient to overcome this rejection. First, Example 1 and 2 do not use the same amount of cationic initiator. Examples 4 and 7 do show compositions with only differences in the free radical initiator present or not but applicants only state that the properties are similar and that curing does occur apparently in both systems ( the use of UVI-6974 without I-184 ), but the properties are not the same and some cure would be expected of the acrylate system by the art recognized ability of sulfonium initiators to act as free radical initiators. Further the showing is for 0.8 % cationic initiator thus is not commensurate in scope with the composition claimed and the cured material with the free radical initiator present was of higher tensile strength, higher elongation break and other variances in properties from the non I-184 cured material. In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257, 191 USPQ 90 (CCPA 1976); In re Woodruff, 919 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990) (The prior art taught carbon monoxide concentrations of "about 1-5%" while the claim was limited to "more than 5%." The court held that "about 1-5%" allowed for concentrations slightly above 5% thus the ranges overlapped.); In re Geisler, 116 F.3d 1465, 1469-71, 43 USPQ2d 1362, 1365-66 (Fed. Cir. 1997) (Claim reciting thickness of a protective layer as falling within a range of "50 to 100 Angstroms" considered prima facie obvious in view

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of prior art reference teaching that "for suitable protection, the thickness of the protective layer should be not less than about 10 nm [i.e., 100 Angstroms]." The court stated that "by stating that 'suitable protection' is provided if the protective layer is about 100 Angstroms thick, [the prior art reference] directly teaches the use of a thickness within [applicant's] claimed range.").

Similarly, a prima facie case of obviousness exists where the claimed ranges and prior art ranges do not overlap but are close enough that one skilled in the art would have expected them to have the same properties. *Titanium Metals Corp. of America v. Banner*, 778 F.2d 775, 227 USPQ 773 (Fed. Cir. 1985).

5. Applicant's arguments filed December 24, 2002 have been fully considered but they are not persuasive. Applicants have not clearly shown how the comparative data cited overcomes the rejection over the combined prior art of Melisaris (WO 99/50711) in view of Tsao et al.

Applicants argue Melisaris does not disclose what result one could expect to achieve by selecting a hydroxy-containing (meth)acrylate. The examiner answers that such compounds are clearly disclosed as usable by Melisaris and are given as examples as already pointed out by this examiner. This is sufficient motivation to use the compounds in question. It is applicant's place to show unexpected results from the use of the compounds set forth by Melisaris as examples to be used. Applicants ignore the teachings of Tsao et al wherein the onium compounds in question are shown to be both cationic and free radical initiators. Applicants argue that one weight of photoinitiator is equivalent to another without supporting this argument other than by allegation, applicants refer to "the radical initiator" being replaced by the "cationic initiator". There is no recognition of this "cationic initiator" being also a "radical initiator" in the general sense. The examiner notes that it is not one as defined by claim 1. Applicants claim "comparable" results

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for Examples 4 and 8. Applicants state that Tsao would lead workers in the art to expect inferior results. Tsao et al in their comparisons do not add more sulfonium when they remove the acetophenone compound. Thus, what Tsao shows is comparative to applicants Examples 4 and 7 not Examples 4 and 8. These do show generally inferior results when the acetophenone is removed. Applicants have not taken into account the molar activity of the compounds in question. It is standard in the chemical arts to consider molar equivalents or molar weights instead of a direct weight to weight comparison of one compound with another. The rejection stands.

6. Claims 6-8, 14 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

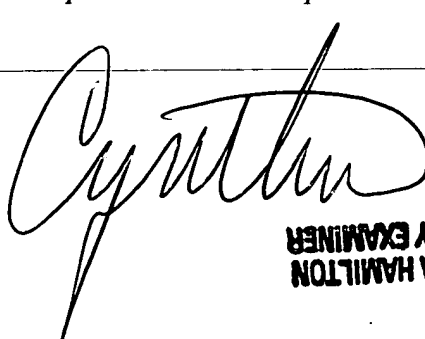
7. Claims 17-18 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim.

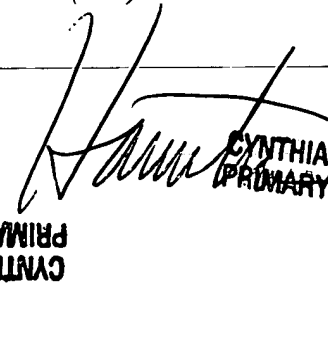
Applicant timely traversed the restriction (election) requirement in Paper No. 6.

*Any inquiry concerning this communication or earlier communications from the examiner should be directed to Primary Examiner Cynthia Hamilton whose telephone number is (703) 308-3626. The examiner can normally be reached on Monday-Friday, 9:30 am to 5:00 pm.*

*If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Janet Baxter can be reached on (703) 308-2303. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.*

*Any inquiry of a general nature or relating to the status of this application should be directed to the 1700 receptionist whose telephone number is (703) 308-0661.*

  
CYNTHIA HAMILTON  
PRIMARY EXAMINER

  
CYNTHIA HAMILTON  
PRIMARY EXAMINER

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Cynthia Hamilton

May 18, 2003

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